CLAIMS

1. (Previously amended) A gain module comprising:

a first optical fiber having a composition in its optical region,

a second optical fiber having another composition in its optical region, and

one or more pump light sources which supply pump light for Raman amplification to each of the first and second optical fibers,

wherein said first and second optical fibers are connected in series and have different wavelength ranges for amplification, and

through said first and second optical fibers signal lights are amplified by stimulated Raman scattering.

2. (Previously amended) A gain module comprising:

a first optical fiber having a composition in its optical region,

a second optical fiber having another composition in its optical region, and

one or more pump light sources which supply pump light for Raman amplification to each of the first and second optical fibers,

wherein said first and second optical fibers are connected in series and have different wavelength ranges for amplification, and

through said first and second optical fibers signal lights are amplified by stimulated Raman scattering;

wherein the difference of Stokes shift quantity of said first and second optical fibers is equal to or more than 200 cm^{-1}.

3. (Previously amended) A gain module comprising:

a first optical fiber having a composition in its optical region,

a second optical fiber having another composition in its optical region, and

one or more pump light sources which supply pump light for Raman amplification to each of the first and second optical fibers,

wherein said first and second optical fibers are connected in series and have different wavelength ranges for amplification, and

through said first and second optical fibers signal lights are amplified by stimulated Raman scattering;

wherein the difference of Stokes shift quantity of said first and second optical fibers is equal to or more than 400 cm^{-1}.

4. (Cancelled)

5. (Currently amended) A gain module comprising:

a plurality of optical fibers which differ from each other with respect to the composition of their respective optical regions and through which signal lights are amplified by stimulated Raman scattering; and

one or more pump light sources which supply pump light for Raman amplification to each of ~~the first and second~~ said plurality of optical fibers;

wherein said plurality of optical fibers are connected in parallel.

6. (Previously amended) A gain module according to Claim 1, wherein said one or more pump light sources supply each of said first and second optical fibers with pump light of a substantially identical wavelength.

7. (Previously amended) A gain module according to Claim 1, wherein pump light that has been output from one pump light source is supplied to said first and second optical fibers.

8. (Currently amended) A gain module comprising:

a plurality of optical fibers which differ from each other with respect to the composition of their respective optical regions and through which signal lights are amplified by stimulated Raman scattering; and

one or more pump light sources which supply pump light for Raman amplification to each of ~~the first and second~~ said plurality of optical fibers;

wherein said pump light source supplies pump light of a different wavelength to each of said plurality of optical fibers.

9. (Previously amended) A gain module according to Claim 1, wherein the optical region of at least one of said first and second optical fibers is doped with GeO_2.

10. (Previously amended) A gain module according to Claim 1, wherein the optical region of at least one of said first and second optical fibers is doped with P_2O_5.

11. (Previously amended) A Raman amplifier comprising:

a plurality of optical fibers which differ from each other with respect to the composition of their respective optical regions and through which signal lights are amplified by stimulated Raman scattering, wherein said plurality of optical fibers have different wavelength ranges for amplification;

one or more pump light sources which supply pump light for Raman amplification to each of said plurality of optical fibers; and

a control unit.

12. (Previously amended) An optical communication system comprising optical transmission lines installed in station sections and one or more pump light sources that supply pump light for Raman amplification to the optical transmission lines,

said optical transmission lines comprising a plurality of optical fibers the optical regions of which differ from each other with respect to their composition and through which signal lights are amplified by stimulated Raman scattering, wherein said plurality of optical fibers have different wavelength ranges for amplification.

13. (Previously amended) An optical communication system comprising:

a plurality of optical fibers which differ from each other with respect to the composition of their respective optical regions and through which signal lights are amplified by stimulated Raman scattering, wherein said plurality of optical fibers have different wavelength ranges for amplification; and

a pump light source for supplying pump light for Raman amplification to each of said plurality of optical fibers, said plurality of optical fibers and said pump light source being located at a station.

14. (Previously presented) A gain module according to claim 1, further comprising:

a first multiplexer located between said first and second optical fibers and introducing pump light into said first optical fiber and

a second multiplexer located at the other end of said second optical fiber and introducing pump light into said second optical fiber.

15. (Previously presented) A gain module according to claim 1, wherein

said pump light is supplied to said first and second optical fibers from different pump light sources respectively.

16. (New) A gain module comprising:

a first optical fiber having a composition in its optical region;

a second optical fiber having another composition in its optical region; and

one or more pump light sources which supply pump light for Raman amplification to each of the first and second optical fibers;

wherein said first and second optical fibers are connected in series and have different wavelength ranges for amplification, and through said first and second optical fibers signal lights are amplified by stimulated Raman scattering; and

said first and second optical fibers and said one or more pump light sources are located at a station.